

Remarks

The Office Action mailed March 8, 2006 has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1-10 and 12-22 are now pending in this application. Claims 1 and 3-20 are rejected. Applicants respectfully submit that Applicants canceled Claim 11 and did not cancel Claim 2 in the response filed on January 9, 2006. Accordingly, Applicants proceed with pending Claims 1-10 and 12-20. Claims 21 and 22 are newly added. Claims 1-3, 12, 19, and 20 have been amended. No new matter has been added. A fee calculation sheet is submitted herewith for the newly added claims.

Applicants respectfully traverse the requirement under 35 U.S.C. §114 for furnishing a model of convenient size to exhibit advantageously several parts of the invention. Specifically, the Office Action states, "Applicant and the assignee...are required under 37 C.F.R. 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application...Specifically including the discussed stand formats for defining a protocol for a device...The information is required to complete the background description in the disclosure by documenting the Global Data Protocol. In response to this requirement, please provide copies of each publication which any of the Applicants authored or co-authored and which describe the disclosed subject matter of the instant invention." Applicants herewith submit an information disclosure statement disclosing U.S. Patent No. 4,926,375 and a copy of that Patent. Applicants respectfully submit that information, other than U.S. Patent No. 4,926,375, required to be submitted by the Examiner is unknown to the Applicants and the Assignees.

The objections to Claims 1 and 3-20 is respectfully traversed. As explained before, Applicants respectfully submit that Applicants canceled Claim 11 and did not cancel Claim 2 in the response filed on January 9, 2006. Accordingly, Applicants proceed as if Claims 1-10 and 12-20 are objected to. Applicants have amended Claims 1-3, 12, 19, and 20. Claims 4-10 and 13-18 depend, directly or indirectly, from independent Claim 1. Accordingly, Applicants respectfully request that the objections to Claims 1-10 and 12-20 be withdrawn.

The rejection of Claims 1 and 3-20 under 35 U.S.C §112, first paragraph, is respectfully traversed. As explained before, Applicants respectfully submit that Applicants canceled Claim 11 and did not cancel Claim 2 in the response filed on January 9, 2006. Accordingly, Applicants proceed as if Claims 1-10 and 12-20 are rejected under 35 U.S.C §112, first paragraph.

Applicants respectfully traverse an assertion on page 2 of the Office Action. The assertion states, "Presently XML does not have any type of standard format that is utilized to define a protocol, therefore the specification is lacking enablement because it fails to disclose what is a standard format in XML, which can be used to define a protocol...XML is a high level documentary language which is not any standard means by which Bit Offset can be represented, therefore the specification for fails to properly enable how this Bit Offset are represented is lacking enablement." Applicants respectfully traverse the assertion.

Although the Office Action suggests that the specification fails to disclose a standard format in XML rendering Claims 1-10 and 12-20 as containing subject matter not described in a way to enable one skilled in the art to make and/or use the invention, Applicants respectfully submit that Claims 1-10 and 12-20 satisfy Section 112, first paragraph. Applicants respectfully submit that one skilled in the art, after reading the specification in light of the figures, would be able to make and/or use the invention as described in Claims 1-10 and 12-20. Specifically, as an example, the specification states, "Figure 2 is an illustration of a file structure of an extensible mark up language (XML) schema file 10 that is utilized to facilitate configuring multiple devices including PLCs by providing a standard format for defining a protocol for the device...In one embodiment, the device is a PLC and the protocol is Ethernet Global Data. " (paragraph 16).

Moreover, as an example, the specification, in paragraphs 17, 18, 22, and 23 states, "File 10 includes an Exchange element 12...Exchange element 12 includes a Build Information element 14, a Device element 16, and an Exchange element 18. Elements of Build Information element 14 include a Name element 20, a Description element 22, a Tool Version element 24, a Validation Code element 26, a Last Build Date element 28, and a Last Build Time element 30...Last Build Date 28 is used to reference the date the file was last built by the configuration tool. Last Build Time 30

is used to reference the time the file was last built by the configuration tool...Further elements of Exchange 18 include...a Transfer Definition element 96...Transfer Definition element 96 includes...a Build Information element 102 and a Variable Or Block Definition element 104...Variable Or Block Definition element 104 includes a Name element 106, a Description element 108, an Address element 110, a Length In Units element 112, a Data Type element (not shown), an Offset In Bytes element 114, a Bit Offset element 116, and a Point Address element 118...Offset In Bytes 114 is used to reference an offset in bytes of where this data is located in the exchange. Bit Offset 116 is used to reference a bit offset within an exchange byte. Point Address 118 is used to reference a point address format of the variable as used by a Human Machine Interface (HMI). This is provided for interoperability with current EGD implementations.” Accordingly, the specification, as an example, describes that the schema file 10 includes a Last Build Date 28 that is used to reference a date an XML data file was last built by a configuration tool. Moreover, the specification, as another example, describes that the schema file 10 includes a Bit Offset 116 that is used to reference a bit offset within an exchange byte. Hence, Figure 2 and the specification illustrate an example of a bit offset and an example of a file structure of an extensible mark up language (XML) schema file 10 that is utilized to facilitate configuring a device by providing a standard format for defining a protocol for the device.

Furthermore, Applicants respectfully submit that Claims 19 and 20 satisfy Section 112, first paragraph. Applicants respectfully submit that one skilled in the art, after reading the specification in light of the figures, would be able to make and/or use the invention as described in Claims 19 and 20. Specifically, as an example, the specification states, “In another aspect, a method for configuring a programmable logic controller (PLC) having a protocol is provided. The method includes utilizing the schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool...However, since XML parsers are readily available, a user parses the alternative format to create an XML file with grammar according to the schema illustrated in Figure 2.” (paragraph 7, paragraph 25). Accordingly, Figure 2 provides an example of a schema used to validate at least one XML file parsed from a comma separated variable file. Hence, the XML file parsed from a comma separated variable can be validated, such as compared, against the

schema of Figure 2. Thus, Applicants respectfully submit that Claims 19 and 20 satisfy Section 112, first paragraph.

For the reasons set forth above, Applicants respectfully request that the rejection of Claims 1-10 and 12-20 under Section 112, first paragraph, be withdrawn.

The rejection of Claims 1 and 3-18 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is respectfully traversed. As explained before, Applicants respectfully submit that Applicants canceled Claim 11 and did not cancel Claim 2 in the response filed on January 9, 2006. Accordingly, Applicants proceed as if Claims 1-10 and 12-18 are rejected under 35 U.S.C. § 101.

Claim 1 has been amended. Claims 2-10 and 12-18 depend, directly or indirectly, from independent Claim 1. For the reasons set forth above, Applicants respectfully request that the Section 101 rejection of Claims 1-10 and 12-18 be withdrawn.

For the reasons set forth above, Applicants respectfully request that the Section 101 rejection of Claims 1 and 3-18 be withdrawn.

The rejection of Claims 1 and 3-20 under 35 U.S.C. § 103(a) as being unpatentable over Helms (U.S. Patent Application Publication No. 2002/0078200) in view of Applicants own admitted prior art (AAPA) is respectfully traversed. As explained before, Applicants respectfully submit that Applicants canceled Claim 11 and did not cancel Claim 2 in the response filed on January 9, 2006. Accordingly, Applicants proceed as if Claims 1-10 and 12-20 are rejected under 35 U.S.C. § 103(a).

Moreover, Applicants respectfully traverse the statement on pages 12, 16, and 17 of the Office Action. The statement states, “see...other cited in the 892 for an examples” for rejecting Claims 8, 19, and 20 under 35 U.S.C. § 103(a). Applicants are unclear regarding an identity of reference indicated as ‘892’. Accordingly, Applicants proceed as if ‘892’ refers to M. Bani Younis and G.Frey, Visualization of PLC Programs using XML, referred to as Younis et al.; John T. Sever, Under the Hood of XSLT, referred to as Sever I; and John T Sever, XML and XSLT for Automation Engineers, referred to as Sever II, and proceed as if Claims 1-10 and 12-

20 are rejected, under , as being unpatentable over Helms in view of AAPA, and further in view of Younis et al., Sever I, and Sever II.

Applicants respectfully submit Younis et al., Sever I, and Sever II are not prior art under 35 U.S.C. § 103(a) because Younis et al., Sever I, and Sever II are not prior art under 35 U.S.C. § 102. A 35 U.S.C. 103 rejection is based on a 102(a), 102(b), 102(e) etc. depending on the type of prior art reference used and its publication or issue date (MPEP 2141.01). Before answering Graham's 'content' inquiry, it must be known whether a patent or publication is in the prior art under 35 U.S.C. 102. (MPEP 2144.08). Accordingly, Applicants respectfully submit that before using any of Younis et al., Sever I, and Sever II as a prior art reference under 35 U.S.C. § 103(a), any of Younis et al., Sever I, and Sever II must be prior art under 35 U.S.C. § 102.

Applicants respectfully submit that Younis et al., Sever I, and Sever II are not prior art under 102 because Younis et al., Sever I, and Sever II are not prior art under § 102(a) or § 102(b).

Applicants respectfully submit that Younis et al., Sever I, and Sever II are not prior art under 35 U.S.C. § 102(a) because Younis et al., Sever I, and Sever II do not have a publication date earlier in time than the effective filing date, November 4, 2002, of the above-referenced application. For 35 U.S.C. § 102(a) to apply, the reference must have a publication date earlier in time than an effective filing date of the application (MPEP 706.02(a)). The publication date of Younis et al. is June 30, 2004, which is not earlier in time than the effective filing date of the above-referenced patent application. Moreover, the publication date of Sever I is February 1, 2005, which is not earlier in time than the effective filing date of the above-referenced patent application. Furthermore, the publication date of Sever II is February 2005, which is not earlier in time than the effective filing date of the above-referenced patent application. Accordingly, Applicants respectfully submit that Younis et al., Sever I, and Sever II are not prior art under 35 U.S.C. § 102(a).

Younis et al., Sever I, and Sever II are not prior art under 35 U.S.C. § 102(b) because Younis et al., Sever I, and Sever II were not published more than one year prior to the date of application, November 4, 2002, for patent in the United States. Publications...must occur more than one year prior to the date of application for

patent in the United States to bar a patent under 35 U.S.C. 102(b) (MPEP 2133). Younis et al. was published on June 30, 2004, which is not more than one year prior to the date of application in the United States of the above-referenced patent application. Furthermore, Sever I was published on February 1, 2005, which is not more than one year prior to the date of application in the United States of the above-referenced patent application. Additionally, Sever II was published in February 2005, which is not more than one year prior to the date of application in the United States of the above-referenced patent application. Accordingly, Applicants respectfully submit that Younis et al., Sever I, and Sever II are not prior art under 35 U.S.C. § 102(b). Hence, Younis et al., Sever I, and Sever II are not prior art under 35 U.S.C. § 102 and are therefore not prior art under 35 U.S.C. § 103(a).

Helms describes a peripheral device, such as a printer. In response to receiving a predetermined device configuration, the peripheral device parses a web page to determine one or more device settings or resources specified by the predetermined device configuration to configure itself (paragraph 20). The received predetermined device configuration includes, for example, control commands encoded as extensible markup language (XML) and wrapped in hypertext transfer protocol (HTTP) (paragraph 20). Such control commands include, for example simple network transfer protocol (SNMP) control commands (paragraph 20).

AAPA describes an Ethernet Global Data (EGD) protocol that enables a plurality of consuming devices and producing devices to operate asynchronously of each other (paragraph 2). These devices include programmable logic controllers (PLCs) and computers, and the data transfers therebetween are commonly called exchanges (paragraph 2). Typically, users of EGD define a comma separated variable (CSV) file format for importing and exporting exchanges for the user's devices (paragraph 3).

Claim 1 recites a method for configuring a programmable logic controller (PLC) having a protocol, the method implemented by a computer and comprising the step of “providing, by the computer, an extensible markup language (XML) schema for the protocol of the PLC, wherein said providing an extensible markup language schema comprises formatting an Ethernet Global Data language of the PLC by applying an extensible markup language format, wherein said formatting the Ethernet

Global Data language of the PLC comprises providing, within the XML schema, a reference to an address of a location of a variable within the PLC.”

Neither Helms nor AAPA, considered alone or in combination, describe or suggest a method for configuring a programmable logic controller as recited in Claim 1. Specifically, neither Helms nor AAPA, considered alone or in combination, describe or suggest formatting an Ethernet Global Data language of the PLC by applying an extensible markup language format, where formatting the Ethernet Global Data language of the PLC includes providing, within the XML schema, a reference to an address of a location of a variable within the PLC. Rather, Helms describes parsing a web page to determine one or more device settings or resources specified by a predetermined device configuration. The received predetermined device configuration includes, for example, control commands encoded as extensible markup language (XML) and wrapped in hypertext transfer protocol (HTTP). The control commands include, for example simple network transfer protocol (SNMP) control commands. A description of parsing the web page to determine one or more device settings does not teach providing, within the XML schema, a reference to an address of a location of a variable within the PLC. AAPA describes enabling, by an Ethernet Global Data (EGD) protocol, a plurality of consuming devices to operate asynchronously of each other. Data transfers between the devices are commonly called exchanges. Typically, users of EGD define a comma separated variable (CSV) file format for importing and exporting exchanges for the devices. Accordingly, neither Helms nor AAPA, does not describe or suggest providing, within the XML schema, a reference to an address of a location of a variable within the PLC. For the reasons set forth above, Claim 1 is submitted to be patentable over Helms in view of AAPA.

Claims 2-10,12-18, and 21 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-10,12-18, and 21 are considered in combination with the recitations of Claim 1, Applicants submit that Claims 2-10,12-18, and 21 likewise are patentable over Helms in view of AAPA.

Claim 19 recites a method for configuring a programmable logic controller (PLC) having a protocol, the method-comprising “utilizing a schema to validate at

least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool for a protocol different than the protocol of the PLC.”

Neither Helms nor AAPA, considered alone or in combination, describe or suggest a method for configuring a programmable logic controller as recited in Claim 19. Specifically, neither Helms nor AAPA, considered alone or in combination, describe or suggest utilizing a schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool for a protocol different than the protocol of the PLC. Rather, Helms describes parsing a web page to determine one or more device settings or resources specified by a predetermined device configuration. The received predetermined device configuration includes, for example, control commands encoded as extensible markup language (XML) and wrapped in hypertext transfer protocol (HTTP). The control commands include, for example simple network transfer protocol (SNMP) control commands. A description of the web page that is parsed to determine one or more device settings does not teach at least one XML file parsed from a comma separated variable (CSV) file. AAPA describes enabling, by an Ethernet Global Data (EGD) protocol, a plurality of consuming devices to operate asynchronously of each other. Data transfers between the devices are commonly called exchanges. Typically, users of EGD define a comma separated variable (CSV) file format for importing and exporting exchanges for the devices. A description of the CSV file format in AAPA does not teach at least one XML file parsed from a comma separated variable (CSV) file. Accordingly, neither Helms nor AAPA, does not describe or suggest utilizing a schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool. For the reasons set forth above, Claim 19 is submitted to be patentable over Helms in view of AAPA.

Claim 20 recites a method for configuring a programmable logic controller (PLC) having a protocol, the method comprising “utilizing a schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool.”

Neither Helms nor AAPA, considered alone or in combination, describe or suggest a method for configuring a programmable logic controller as recited in Claim 20. Specifically, neither Helms nor AAPA, considered alone or in combination,

describe or suggest utilizing a schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool. Rather, Helms describes parsing a web page to determine one or more device settings or resources specified by a predetermined device configuration. The received predetermined device configuration includes, for example, control commands encoded as extensible markup language (XML) and wrapped in hypertext transfer protocol (HTTP). The control commands include, for example simple network transfer protocol (SNMP) control commands. A description of the web page that is parsed to determine one or more device settings does not teach at least one XML file parsed from a comma separated variable (CSV) file. AAPA describes enabling, by an Ethernet Global Data (EGD) protocol, a plurality of consuming devices to operate asynchronously of each other. Data transfers between the devices are commonly called exchanges. Typically, users of EGD define a comma separated variable (CSV) file format for importing and exporting exchanges for the devices. A description of the CSV file format in AAPA does not teach at least one XML file parsed from a comma separated variable (CSV) file. Accordingly, neither Helms nor AAPA, does not describe or suggest utilizing a schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool. For the reasons set forth above, Claim 20 is submitted to be patentable over Helms in view of AAPA.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-10 and 11-20 be withdrawn.

Moreover, Applicants respectfully submit that the Section 103 rejection of Claims 1-10 and 11-20 is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. Neither Helms nor AAPA, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Helms with AAPA because there is no motivation to combine the references suggested in the cited art itself.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex

parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

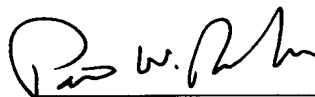
Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Helms teaches parsing a web page to determine one or more device settings or resources specified by a predetermined device configuration. The received predetermined device configuration includes, for example, control commands encoded as extensible markup language (XML) and wrapped in hypertext transfer protocol (HTTP). The control commands include, for example simple network transfer protocol (SNMP) control commands. AAPA teaches enabling, by an Ethernet Global Data (EGD) protocol, a plurality of consuming devices to operate asynchronously of each other. Data transfers between the devices are commonly called exchanges. Typically, users of EGD define a comma separated variable (CSV) file format for importing and exporting exchanges for the devices. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejections of Claims 1-10 and 11-20 be withdrawn.

For at least the reasons set forth above, Applicants respectfully request that the rejections of Claims 1-10 and 11-20 under 35 U.S.C. 103(a) be withdrawn.

Newly added Claims 21 and 22 depend from independent Claim 1, which is submitted to be in condition for allowance and is patentable over the cited art. For at least the reasons set forth above, Applicants respectfully submit that Claims 21 and 22 are also patentable over the cited art.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Patrick W. Rasche", is written over a horizontal line.

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